

## **REMARKS**

Reconsideration of this application, in view of the following remarks, is respectfully requested.

### **I. Status Of The Claims**


Claims 19, 21, and 22 have been allowed. Claims 5, 7, and 8 have been canceled without prejudice. Claim 9 has been amended to include the transitional phrase “consisting essentially of”. Claim 23 has been added. Claim 23 is identical to pending claim 15 but also requires that the electrical conductivity of the copper microalloy is greater than 101% IACS (see, e.g., original claim 4). No new matter has been added by these amendments. Claims 9-12, 14, 15, 17-19, and 21-23 are pending in this application, with claims 9-12, 14, 15, 17, 18, and 23 at issue.

### **II. Claim Rejections**

Claims 5, 7-11, 15, 17, and 18 stand rejected as obvious over JP 62133050 (JP '050). Claims 12 and 14 stand rejected as obvious over JP '050 in view of allegedly acknowledged prior art.

Claims 5, 7, and 8 have been canceled without prejudice. Pending claims 9-11, 15, 17, and 18 all include the transitional phrase “consisting essentially of”. Therefore, the presently claimed copper microalloy excludes elements in amounts which would affect its basic and novel characteristics.

At point 12 on page 5 of the Office Action, the Examiner contends that the elements recited in the claims all have open ended ranges. Contrary to the Examiner’s assertion, the pending claims specify that the copper microalloy includes Zn, Fe, Ni, Sn, and Ag impurities in amounts of the order of tens of weight ppm. Therefore, the claimed copper microalloy contains only certain amounts of zinc, iron, nickel, tin, and silver. The claimed copper microalloy cannot contain thousands of ppm of any of these elements.

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JP '050 discloses a copper alloy suitable for making precision springs. The copper alloy contains 0.1-5.0 wt% of both tin (Sn) and titanium (Ti) (i.e, 1 *thousand* to 50 *thousand* ppm of tin and 1 *thousand* to 50 *thousand* ppm of titanium), and optionally lead. The JP '050 copper alloy has an electrical conductivity of 30% of IACS.

Copper alloys containing such high contents of tin and titanium do not have an electrical conductivity of 100% IACS or greater. See the abstract of JP '050 and paragraphs 8 and 9 of the September 25, 2003 Declaration of Dr. Espiell. Therefore, the inclusion of tin and titanium in such high amounts in the presently claimed microalloy would affect its basic and novel characteristics. Furthermore, JP '050 does not provide any motivation for decreasing the content of tin and titanium in the disclosed copper alloy.

For the foregoing reasons, JP ‘050 alone or in combination with the alleged admitted prior art fails to render obvious the presently claimed microalloy.

### III. Conclusion

In view of the above, each of claims 9-12, 14, 15, 17, 18, and 23 in this application is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

By

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